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### **REMARKS**

Claims 1-7, 18, and 19 are pending in the application.

Applicants thank Examiner VanderVegt for the courtesy he extended in conducting a telephone interview with Applicants on August 4, 2004. Specifically, the '863 patent of record was discussed. In addition, the contribution of co-inventor Elizabeth Cauchon to the pending was addressed. Applicants appreciate the time the Examiner took to review the record and offer suggestions during the telephone interview.

#### **I. Rejection of claims under 35 U.S.C. § 102(e) or (f)**

Claims 1-7, 18, and 19 stand rejected under 35 U.S.C. § 102(e) as anticipated by Zimmerman (US 5,997,863).

Applicants respectfully traverse this rejection.

The Examiner opines that the methods of the '863 patent anticipate the instantly claimed method of decreasing localized inflammatory responses. Applicants disagree with the Examiner. As Applicants have previously discussed in the Amendment filed January 26, 2004, it is Applicants belief that the instant §102(e) rejection is based on a mischaracterization of the '863 reference.

Nevertheless, upon investigating the inventors who were involved in the work leading to Example 8 of the '863 patent, Applicants have identified that two of the inventors, Clark Bennett and Pam Danagher, contributed to the rabbit studies in Example 8. To this end, Applicants submitted Declarations pursuant to 37 C.F.R. § 1.132 to establish that the use of the '863 patent

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is not by "another" under §102(e). For example, Applicants filed the executed § 1.132 Declarations of Richard Broughton and Israel Vlodavsky, named inventors on the '863 patent, (executed on August 1, 2002 and July 29, 2002, respectively), and resubmitted the Declarations with the Amendment and RCE filed January 26, 2004. The Broughton and Vlodavsky Declarations averred that they did not contribute to the portions of the '863 patent that form the basis for the §102(e) rejection. Applicants also used their best efforts to locate the named inventors of the instant invention not listed on the '863 patent, Elizabeth Cauchon, Dominique Fink, Brigitte Grouix, and Ariane Hsia. However, despite their best efforts, Applicants were only able to locate one of the four inventors, Elizabeth Cauchon. The § 1.132 Cauchon Declaration, executed September 7, 2003, establishes that she did not make an inventive contribution to Example 8 of the '863 patent and was also submitted with the Amendment filed January 26, 2004.

The Examiner acknowledges that the Broughton and Vlodavsky Declarations establish that they did not contribute to the portions of the '863 patent that form the basis for the instant rejection. However, he states that the Cauchon Declaration does not serve to clarify the inventorship of the claimed invention and that it is unclear what inventive contribution she made to the instant invention, which appears to be solely the work of Clark Bennett and Pam Danagher. The Examiner further requests that Applicants clarify what contributions Ms. Cauchon made to the instantly claimed invention.

Applicants contend that Example 8 of the '863 patent does not, in fact, anticipate the claims, which clearly identify that the heparinase enzyme is administered in an effective amount

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sufficient to decrease neutrophil transmigration through activated endothelium and basement membrane of the vasculature, which decreases said localized inflammatory response arising from an ischemia/reperfusion injury. Nevertheless, in response to the Examiner's request, Applicants would like to direct the Examiner to the 37 C.F.R. § 1.131 Declaration executed by Ms. Cauchon on November 2, 1998 (Paper No. 11), a copy of which is attached for the Examiner's convenience. As stated in items 6 and 7 of the Declaration, among Ms. Cauchon's inventive contributions to the claims of the instant application was the development of an *in vitro* neutrophil transmigration assay system. The lab notebook pages attached to the Cauchon Declaration demonstrate that Ms. Cauchon was able to show that heparinase treatment of human umbilical venous endothelial cells inhibits neutrophil transmigration. Applicants respectfully contend that the combination of Ms. Cauchon's work identifying the inhibition of *in vitro* neutrophil transmigration using heparinase with the *in vivo* data from the rabbit models allowed the inventors to arrive at the conclusion that heparinase could be administered to human cells to decrease the localized inflammatory response in human tissue. Applicants respectfully note that the results of several neutrophil transmigration assays conducted by Ms. Cauchon were presented in Example 4 of the instant application.

Applicants respectfully submit that the Cauchon Declarations executed on November 2, 1998 and September 7, 2003 make clear that Ms. Cauchon made an inventive contribution to the pending claims of the instant application. Her work established the use of heparinase in human cells and established the neutrophil migratory actions associated therewith, which leads to reduced inflammatory response.

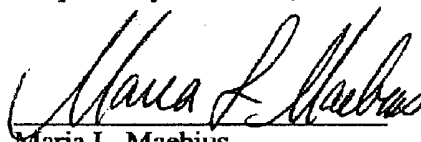
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As a §102(e) rejection is only proper over the invention of "another," Applicants respectfully request that the rejection of claims 1-7 and 18-19 under 35 U.S.C. § 102(e) be withdrawn.

## II. CONCLUSION

In view of the foregoing remarks, Applicants believe that the application is in condition for allowance. However, if the Examiner disagrees, he is encouraged to call the undersigned at the number listed below in order to expedite the prosecution of this application.

Respectfully submitted,



Maria L. Maebius  
Attorney for Applicant  
Reg. No. 42,967

Date: 18 AUGUST 2004  
Wilmer Cutler Pickering Hale and Dorr LLP  
1455 Pennsylvania Ave., NW  
Washington, D.C. 20004  
(202) 942-8452